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(72) Inventor: **Tokiwa, Shizurou**
Kanagawa-ken (JP)

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(74) Representative:
Watkin, Timothy Lawrence Harvey
Lloyd Wise, Tregeear & Co.,
Commonwealth House,
1-19 New Oxford Street
London. WC1A 1LW (GB)

(71) Applicant: TOKYO KIKAI SEISAKUSHO LTD.
Takao (JP)

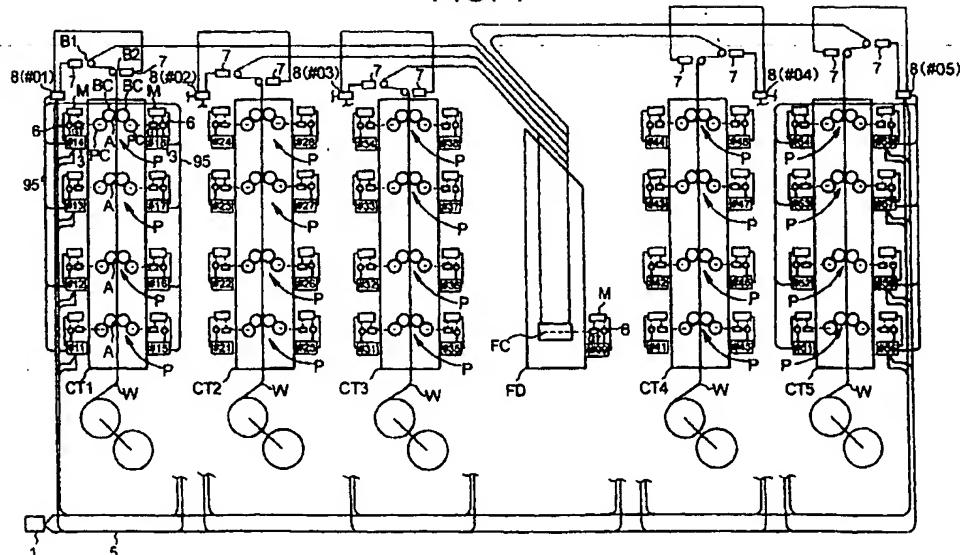
(54) A synchronous control system having automatic cutting and printing registering functions

(57) The present invention is intended to automatically adjust cutting and printing registers based on the detection of predetermined marks for different colors in a rotary press using a paper web (W), thereby eliminating the need for skills and reducing time for adjusting cutting registers.

A driving reference setting section (13), a feedback

signal output section (37,39), a mark detecting section (7), and a register correction value output section (8) are provided, and a control section (1) for controlling the driving section (3) of the printing mechanism (P) effects control so that the driving reference phase is synchronized with the feedback phase of the plate cylinder (PC) driven by each driving means (M).

FIG. 1





DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
Y	WO 97 11848 A (SIEMENS AKTIENGESELLSCHAFT) 3 April 1997 (1997-04-03)	1,2,4,6, 8	B41F33/00 B41F13/12
A	see abstract * page 1, line 5 - page 14, line 4; figures 1-5 *	3,5,7	
Y	EP 0 699 524 A (MAN-ROLAND DRUCKMASCHINEN AKTIENGESELLSCHAFT) 6 March 1996 (1996-03-06)	1,2,4,6, 8	
A	see abstract * column 2, line 41 - column 8, line 23; figures 1-26 *	3,5,7	
A	US 1 993 579 A (W. L. WRIGHT) 5 March 1935 (1935-03-05) * the whole document *	1-8	
A	EP 0 930 552 A (BAUMÜLLER ANLAGEN-SYSTEMTECHNIK) 21 July 1999 (1999-07-21) * the whole document *	1-8	
A	US 5 647 582 A (NORIYUKI SHIBA) 15 July 1997 (1997-07-15) * the whole document *	1-8	TECHNICAL FIELDS SEARCHED (Int.Cl.7) B41F
A	DE 195 09 947 A (KOENIG & BAUER-ALBERT AKTIENGESELLSCHAFT) 19 September 1996 (1996-09-19) * the whole document *	1-8	
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
MUNICH		17 July 2002	Greiner, E
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EP 01 30 5085

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

17-07-2002

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 9711848	A	03-04-1997	DE	59601958 D1	24-06-1999
			WO	9711848 A1	03-04-1997
			EP	0852538 A1	15-07-1998
			JP	11511407 T	05-10-1999
			US	5947023 A	07-09-1999
EP 0699524	A	06-03-1996	DE	4430693 A1	07-03-1996
			DE	9421890 U1	19-12-1996
			DE	9421891 U1	19-12-1996
			DE	9421909 U1	23-01-1997
			DE	9422044 U1	18-09-1997
			DE	9422046 U1	18-09-1997
			DE	9422047 U1	18-09-1997
			DE	29522290 U1	29-03-2001
			DE	29522314 U1	09-08-2001
			DE	59509776 D1	06-12-2001
			EP	1110722 A1	27-06-2001
			EP	1132202 A1	12-09-2001
			EP	0699524 A2	06-03-1996
			JP	3059081 B2	04-07-2000
			JP	8085196 A	02-04-1996
			JP	11147305 A	02-06-1999
			US	6408748 B1	25-06-2002
US 1993579	A	05-03-1935		NONE	
EP 0930552	A	21-07-1999	EP	0930552 A2	21-07-1999
US 5647582	A	15-07-1997	JP	2822166 B2	11-11-1998
			JP	9052345 A	25-02-1997
DE 19509947	A	19-09-1996	DE	19509947 A1	19-09-1996

EPO FORM P0159
For more details about this annex : see Official Journal of the European Patent Office, No. 12/82